Knox - EAC

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TENNESSEE AIR POLLUTION CONTROL BOARD
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
NASHVILLE, TENNESSEE 37243-1531

Permit to Construct or Modify an Air Contaminant Source Issued Pursuant to Tennessee Air Quality Act

Date Issued: JUL 3 1 2003

Permit Number: 956507I

Date Expires: January 1, 2004

Issued To:
City of Oak Ridge Animal Control

Installation Address:
395 Belgrade Rd.
Oak Ridge

Installation Description:
Natural Gas Fired Animal Crematory

Emission Source Reference No.
01-0184-01

The holder of this permit shall comply with the conditions contained in this permit as well as all applicable provisions of the Tennessee Air Pollution Control Regulations.

CONDITIONS:

1. The application that was utilized in the preparation of this permit is dated May 21, 2003, and is signed by Rhonda L. Bender, Animal Control Supervisor for the permitted facility. If this person terminates his/her employment or is reassigned different duties such that he/she is no longer the responsible person to represent and bind the facility in environmental permitting affairs, the owner or operator of this air contaminant source shall notify the Technical Secretary of the change. Said notification shall be in writing and submitted within thirty (30) days of the change. The notification shall include the name and title of the new person assigned by the source owner or operator to represent and bind the facility in environmental permitting affairs. All representations, agreement to terms and conditions and covenants made by the former responsible person that were used in the establishment of limiting permit conditions on this permit will continue to be binding on the facility until such time that a revision to this permit is obtained that would change said representations, agreements and covenants.

(conditions continued on next page)

TECHNICAL SECRETARY

KM
HAA

No Authority is Granted by this Permit to Operate, Construct, or Maintain any Installation in Violation of any Law, Statute, Code, Ordinance, Rule, or Regulation of the State of Tennessee or any of its Political Subdivisions.

NON-TRANSFERABLE

POST AT INSTALLATION ADDRESS

2. The total stated design heat input capacity for this source is 0.8 Million British Thermal Units per hour (MMBTU/hr). The Technical Secretary may require the permittee to prove compliance with this rate.

3. Only natural gas shall be used as fuel for this source.

4. The maximum charging rate for this source shall not exceed 88 pounds per hour.

5. Particulate matter emitted from this source shall not exceed 0.2% of the charging rate (0.18 pounds per hour). This emission limitation is established pursuant to Rule 1200-3-6-.02(3)(a) of the Tennessee Air Pollution Control Regulations and the incinerator input rate, as specified in Condition # 4 of this permit.

6. Sulfur dioxide (SO_2) emitted from this source shall not exceed 0.5 pounds per hour.

   The above emission limitation is established pursuant to Rule 1200-3-14-.01(3) of the Tennessee Air Pollution Control Regulations and the information contained in the agreement letter dated April 23, 2003 from the permittee.

7. A log of the incinerator material input must be maintained at the source location and kept available for inspection by the Technical Secretary or his representative. This log must be retained for a period of not less than two (2) years.

8. This incinerator shall be operated with a minimum secondary chamber temperature of 1600°F or the optimum temperature recommended by the manufacturer for complete combustion of the material charged to the incinerator.

9. This permit is not valid for incineration of any "infectious waste" as this term is defined at 1200-3-25-.04 of Tennessee Air Pollution Control Regulations.

10. If there is a complaint from the public about this operation, the Technical Secretary may require installation of automatic controls as well as monitoring and recording of the incinerator secondary chamber temperature. When required, the Technical Secretary will notify the permittee in writing that these actions must be taken.

11. If required by the Technical Secretary (as specified in Condition # 10) the secondary chamber temperature shall be continuously monitored and recorded. Sensors shall be installed, maintained, and operated such that the flames from the burners do not impinge upon the sensors. The secondary chamber temperature shall be measured at or beyond the chamber exit. The temperature sensing device shall have an accuracy that is plus or minus 25°F over its operating range. The recorders must have a minimum chart speed of one (1) inch per hour for strip chart recorders and a maximum of 24 hours per chart for circular recorders.

12. Visible emissions from this source shall not exceed twenty (20) percent opacity except for one six minute period per one (1) hour or more than twenty-four (24) minutes in any twenty-four (24) hour period. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (6 minute average). TAPCR 1200-3-5-.03(6) and TAPCR 1200-3-5-.01(1).

13. Pursuant to 1200-3-9-02(3) of the Tennessee Air Pollution Control regulations, the permittee shall apply for permit renewal at least sixty (60) days prior to the expiration of this permit.

(conditions continued on next page)

14. The permittee shall certify the start-up date of the air contaminant source regulated by this permit by submitting A COPY OF ALL PAGES OF THIS PERMIT, with the information required in A) and B) of this condition completed, to the Technical Secretary's representatives listed below:

A) DATE OF START-UP: _____ / _____ / _____
month day year

B) Anticipated operating rate: _____ percent of maximum rated capacity

For the purpose of complying with this condition, "start-up" of the air contaminant source shall be the date of the setting in operation of the source for the production of product for sale or use as raw materials or steam or heat production.

The undersigned represents that he/she has the full authority to represent and bind the permittee in environmental permitting affairs. The undersigned further represents that the above provided information is true to the best of his/her knowledge and belief.

Signature		Date
Signer's name (type or print)	Title	Phone (with area code)

Note: This certification is not an application for an operating permit. At a minimum, the appropriate application form(s) must be submitted requesting an operating permit. The application must be submitted in accordance with the requirements of this permit.

The completed certification shall be delivered to the Compliance Validation Program and the Environmental Assistance Center at the addresses listed below, no later than thirty (30) days after the air contaminant source is started-up.

Compliance Validation Program
Division of Air Pollution Control
9th Floor, L & C Annex
401 Church Street
Nashville, TN 37243-1531

Knoxville Environmental Assistance Center
Division of Air Pollution Control
2700 Middlebrook Pike
Knoxville, TN 37921

(end of conditions)

Emission Summary

Permit Number: 956507I

Source Status: New☒ Modification☐ Expansion☐ Relocation☐ **Permit Status:** New☒ Renewal☐

PSD☐ NSPS☐ NESHAPs☐ **Previous Permit Number:** Construction _____ Operating _____

	Pounds/Hour			Tons/Year				Date of Data	*	Applicable Standard 1200-3-
	Actual	Potential	Allowable	Actual	Potential	Allowable	Net Change			
TSP	0.006	0.006	0.176	0.006	0.03	0.77		5/21/03	1	6-.02(3)(a)
SO_2	0.0005	0.5	0.5	0.0005	2.19	2.19		5/21/03	1	14-.01(3)
CO	0.07	0.07	0.07	0.07	0.31	0.31		5/21/03	1	6-.03(2)
VOC	0.004	0.004	0.004	0.004	0.02	0.02		5/21/03	1	6-.03(2)
NO_X	0.08	0.08	0.08	0.08	0.35	0.35		5/21/03	1	6-.03(2)

* - Source of data

1. Data from application

PERMITTING PROGRAM: KM DATE: July 3, 2003

CITY OF OAK RIDGE ANIMAL CONTROL
01-0184-01
56507

Incinerator – Natural Gas Fired Animal Crematory

Charging Rate = 88 lb/hr
Burner Capacity = 0.8 MMBTU/hr
Natural Gas Usage = 1600 cfh (design), 700 cfh (avg)
Operating Factor = (8 hr/day)(5 day/wk)(52 wk/yr) = 2080 hr/yr

Max allowable TSP: (0.002)(88 lb/hr) = 0.176 lb/hr = 0.77 ton/yr

Max allowable SO2: (4 lb/MMBTU)(0.8 MMBTU/hr) = 3.2 lb/hr = 14.02 ton/yr
Agreement Letter for 0.5 lb/hr limit for SO2

TSP(actual) : (7.6 lb/MMscf)(1 MMscf/1000 MMBTU)(0.8 MMBTU/hr) = 0.006 lb/hr
(0.006 lb/hr)(2080 hr/yr)(ton/2000 lb) = 0.006 ton/yr

TSP(potential) : (0.006 lb/hr)(4.38) = 0.03 ton/yr

CO(actual) : (84 lb/MMscf)(1 MMscf/1000 MMBTU)(0.8 MMBTU/hr) = 0.07 lb/hr
(0.07 lb/hr)(2080 hr/yr)(ton/2000 lb) = 0.07 ton/yr

CO(potential) : (0.07 lb/hr)(4.38) = 0.31 ton/yr

VOC(actual) : (5.5 lb/MMscf)(1 MMscf/1000 MMBTU)(0.8 MMBTU/hr) = 0.004 lb/hr
(0.004 lb/hr)(2080 hr/yr)(ton/2000lb) = 0.004 ton/yr

VOC(potential) : (0.004 lb/hr)(4.38) = 0.02 ton/yr

NOx(actual) : (100 lb/MMscf)(1 MMscf/1000 MMBTU)(0.8 MMBTU/hr) = 0.08 lb/hr
(0.08 lb/hr)(2080 hr/yr)(ton/2000lb) = 0.08 ton/yr

NOx(potential) : (0.08lb/hr)(4.38) = 0.35 ton/yr

CONSTRUCTION PERMIT SUMMARY REPORT

Company Name: Oak Ridge Animal Control

File Number: 01-0184 Env. Prot. Spec. Initials: KM

Permit Number(s): 956507 I

Source Point Number(s): 01

Application Received (date): 6/02/03

Application Complete (date): 7/10/03

Air Quality Analysis Performed? Yes☐ No☒

Briefly describe the project: (new source, modifications) (what the process is) (type controls proposed) (emissions expected, qualitative) (replacing what sources) (background information)

This is a new source, animal incinerator. The company has agreed to a SO_2 limit of 0.5 lb/hr.

Rules Analysis

Title V☐ Cond. Major☐ Minor☒ Source category listed in 1200-3-9-.01(4)(b)1.(i)? Yes☐ No☒

Reason for PSD:	New source above ____ TPY ☐	Sig. increase in ____ emissions ☐	N/A☒
Applicable NSPS:	40 CFR Part 60, Subpart ____ ☐	State Rule 1200-3-16-.____ ☐	N/A☒
Applicable NESHAP:	40 CFR Part 61, Subpart ____ ☐	State Rule 1200-3-11-.____ ☐	N/A☒
" "	40 CFR Part 63, Subpart ____ ☐	State Rule 1200-3-31-.____ ☐	N/A☒

Other Applicable State Rules

TSP Emissions:	1200-3-6-.02(3)(a)☒	N/A☐	NO_x Emissions:	1200-3-6-.03(2)☒	N/A☐
SO_2 Emissions:	1200-3-14-.01(3)☒	N/A☐	Lead Emissions:	1200-3-___-.____☐	N/A☒
CO Emissions:	1200-3-6-.03(2)☒	N/A☐	____ Emissions:	1200-3-___-.____☐	N/A☒
VOC Emissions:	1200-3-6-.03(2)☒	N/A☐	____ Emissions:	1200-3-___-.____☐	N/A☒

Visible Emissions from incinerator not to exceed 20 % opacity per Method 9 (Rule 1200-3-5-.03(6))

Visible Emissions from _____ not to exceed ____% opacity per Method ____ (Rule 1200-3-___-.____)

Visible Emissions from _____ not to exceed ____% opacity per Method ____ (Rule 1200-3-___-.____)

Comments: _____